none none none

(8)

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ANNEX 3
1/2

PN - JP4311384 A 19921104
PD - 1992-11-04
PR - JP19910079277 19910411
OPD - 1991-04-11
TI - METHOD FOR PLANT TISSUE CULTURE AND GROWTH PROMOTER FOR PLANT TISSUE CULTURE
IN - MASAYAMA YUKIHIRO;SASAKI YOSHINORI
PA - CALPIS FOOD IND CO LTD
IC - C12N5/04

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TI - Method for culturing plant tissue - involves adding oligosaccharide growth promoter esp. soybean oligosaccharide(s) to culture medium contg. plant tissue
PR - JP19910079277 19910411
PN - JP4311384 A 19921104 DW199251 C12N5/04 006pp
PA - (CALV) CALPIS SHOKUHIN KOGYO KK
IC - C12N5/04
AB - J04311384 Process comprises adding oligosaccharide having growth promotion activity to culture medium. Examples of oligosaccharides as an essential component are e.g., ones where 2-10 (pref. 3-6) of monosaccharides are bonded such as soybean oligosaccharides extracted from soybeans contg. stachyose, raffinose, etc. as a main component, fructo-oligosaccharide, isomalto-oligosaccharide, galacto-oligosaccharide, malto-oligosaccharide, xylo-oligosaccharide, etc. These are used independently or as a mixt.. Soybean oligosaccharide is pref. More specifically selected from soybeans, their extracts, soybean whey, treated soln., and mixt.. Culture medium conditions are pH5-7, temp. 25 deg.C and 2,000-4,000 luxs with a lighting term of about 16 hours/day. The oligosaccharide is added to a culture medium in an amt. of 0.1-10 % w/v. The plant tissues are obtd. from plant bodies such as roots, stems leaves, auxillary buds, etc. esp. callus, secondary adventitious embryo, protocorm, shoot, etc.. Plant growth promotion is determined by, e.g., culturing for a certain period, the culture medium and comparing total weight of culture tissue, number of shoots, number of root, etc. of the culture medium where the oligosaccharide is added, with the one untreated.
- USE/ADVANTAGE - Provides a plant growth promoter for culturing plant tissues. (Dwg.0/0)

ANNEX 3 (12)

- OPD - 1991-04-11
AN - 1992-418097 [51]

PN - JP4311384 A 19921104
PD - 1992-11-04
AP - JP19910079277 19910411
IN - MASAYAMA YUKIHIRO; others:01
PA - CALPIS FOOD IND CO LTD:THE
TI - METHOD FOR PLANT TISSUE CULTURE AND GROWTH PROMOTER FOR PLANT TISSUE CULTURE

AB - PURPOSE:To provide high growth promoting action and efficiently culture a plant tissue on an industrial level without relying on plant seeds by adding a growth promoter containing an oligosaccharide having the growth promoting action for culturing the plant tissue into a culture medium in culturing the plant tissue.
- CONSTITUTION:Soybean protein whey is diluted with water and heat-treated and a solution of calcium chloride is then added thereto. The pH of the resultant solution is subsequently regulated to 4.8-5.0 and the regulated solution is allowed to stand for 16hr to collect the clear supernatant solution. The obtained clear solution is treated with an ultrafiltration membrane and the treated solution is electrodialyzed with an ion exchange membrane, further passed through an ion exchange resin column and then concentrated to prepare an oligosaccharide syrup. A growth promoter containing the oligosaccharide having growth promoting action on a plant tissue for culturing the plant tissue is provided therefrom and the resultant growth promoter is added into a culture medium to carry out culturing of the plant tissue (e.g. a secondary adventitious bud of Quercus acutissima Carr.). Thereby, the plant tissue is efficiently cultured on an industrial level.

I - C12N5/04